EVALUATION STATEMENT

Labor Category/FLSA: Non-exempt

__X___ Current Position Description
_____Proposed Position Description

Date Prepared: July 3, 2003

Approving Official: Name: Charlene Watson Signature: Charlene Watson
HR Specialist

Position Title/Series/Grade: Utility Systems Repairer Operator WG-4742-11

ORGANIZATION: Division of Intramural Research: Intramural Administrative Management Branch, Administrative and Facilities Management Section

REFERENCES: OPM JGS for Utility Systems Repairer Operator; Electrician; Heat and boiler Plant Equipment mechanic

Background: This position is in the Intramural Administrative Management Branch, Administrative and Facilities Management Section, Rocky Mountain Laboratories.

It is an established position and meets the requirements for Utility Systems Repairer Operator. WG-4742-11

Utility Systems Repairer Operator, WG-4742-11

1. INTRODUCTION

The Rocky Mountain Laboratories (RML) maintenance shop in the Administrative and Facilities Management Section (AFMS) is responsible for: (1) operation, maintenance, and repairs to all mechanical equipment associated with heating, ventilating, air conditioning, and refrigeration, and (2) utilities services in the RML buildings. The more than thirty (30) buildings serviced include medical research laboratories, animal surgery, animal quarantine, animal housing, general office, and computer facilities.

2. DUTIES AND RESPONSIBILITIES

Incumbent serves at the full journeymen level, repairing, operating, and maintaining all mechanical equipment in the RML buildings. The employees assigned to the position description work the day shift. Provides backup for other workers in the Maintenance Section including helping the electrician, plumber, and carpenter as needed.

a. Steam Distribution Equipment

Inspects, operates, adjusts, maintains, and makes repairs to 165 psig down to 2 psig on steam distribution systems. This includes valves, reducing stations, pilot control valves, traps, condensate pumps, water heaters, industrial and domestic oil fired boilers. Performs similar services on heating, ventilating, and air conditioning systems. Requires an expert knowledge of steam systems, so when he/she responds to emergency situations such as loss of steam to an animal facility, the problem can be diagnosed, corrected, and restore system back to normal operation without any adverse effects to the animals.

b. Refrigeration Equipment

Inspects, operates, adjusts, maintains, and makes repairs to refrigeration equipment. This equipment includes domestic refrigerators, freezer units, cold and constant temperature walk-in rooms ranging in temperature form -85° C., to +40° C., humidifying and dehumidifying equipment, and cooling towers. Must be able to respond to emergency situations; such as -70° C reach-in boxes (which contains valuable research material) temperature rising, diagnose the situation and take corrective action, so that none of the research material is damaged.

c. Heating Ventilating and Air Conditioning (HVAC)

Inspects, operates, calibrates maintains and makes repairs to building HVAC systems. These systems include return air, 100 percent fresh air, single duct, double duct, terminal reheat, variable air volume, constant air volume, zone control, and induction units. These systems ranging in size from 90,000 CFM at 6 inches static pressure, driven by a 200 hp 480 volt motor with electronic variable speed controller to a 5,000 CFM at ½ inch static pressure, driven by a ¾ hp 208 volt motor. Must be able to respond emergency situations

and diagnose problems; such as a HVAC system serving an operating room not maintaining proper ventilation rates, temperatures or shut down; make repairs so as not to endanger the persons or animals being operated on. Also maintain and operate specialized HVAC systems serving such facilities as: biological containment buildings radiation waste/usage buildings, magnetic resonance system, animal operating rooms, laminar flow rooms, pathogen free animal buildings, and computer facilities. If an incorrect procedure is performed while maintaining proper temperature/humidity, or air flow in an animal operating suite, recovery room, or computer room; it can have an adverse effect on animal care or research programs.

d. Specialized Mechanical Equipment/Systems

Inspects, operates, maintains, and repairs air compressors, vacuum pumps, fire pumps, stills, deionized water systems, sterile air systems, laundry equipment, bio-waste treatment systems, biological and chemical exhaust systems.

e. Fabrication

Using a lathe, fabricates items to meet unique scientific needs and facility requirements, such as modifications to animal housing or unique facility equipment for which replacement parts are unavailable. Cuts, shapes, and assembles sheet metal to work with HVAC systems, animal care systems, and other facility requirements.

f. Design and Construction

Assists in the design of floor plans and infrastructure support systems for renovation of facility spaces as periodically required when research requirements change. Attends construction meetings to remain abreast of ongoing renovation issues and to provide advice to architects, engineers, and contract construction crews on various mechanical, electrical, and plumbing issues related to RML building projects.

3. SUPERVISION AND GUIDANCE RECEIVED

After receiving work assignment from supervisor or leader, works independently using his/her comprehensive trade knowledge of systems, and knows the impact of repairs on adjustments made. Is accountable to supervisor for amount and quality of work performed. Supervisor will periodically check overall work to see that it meets accepted trade standards. Work is assigned orally and through work orders or maintenance orders which only generally describe the problem and its location. Incumbent must exercise great care in adjusting or repairing very delicate equipment and controls. Responds to emergencies requiring immediate corrective action.

4. SKILLS AND KNOWLEDGE

An extremely high degree of mental application is required in proper functions and limitations of the steam distribution, HVAC, refrigeration, and specialized systems. Has the ability to read and interpret complicated operating, maintenance and repair instructions, control diagrams, blueprints, and specifications. Has the knowledge to diagnose and calibrate complex pneumatic/electronic control systems, both conventional and computerized, manufactured by a wide range of companies i.e., computerized - Johnson JC-80, Powers 600 SCU, Honeywell 1000 and 2000 - conventional - Johnson, Powers, Barber Coleman, and Robert Shaw. Has the knowledge to air balance laboratory, animal, office, and computer facilities. Must be able to calculate necessary air quantities/changes in CFM and FPM. Must be capable of using needed air balancing instruments i.e. incline manometer, velometer, and hot wire anemometer. Must be familiar with safe and effective operation of fabrication equipment such as lathes, sheet metal cutters, and related hand tools. Must have a knowledge of facility electrical use and design to be able to properly connect utility systems to installed circuit-breaker panels.

5. PHYSICAL EFFORT

The use of hearing, sight, sense of smell, and touch is required. Climbs ladders, reads gauges, crawls, bends, stoops, crouches, lifts weights up to approximately 50 lb., etc. Prolonged standing, walking on concrete floors, climbing stairways and ladders. Occasional stacking, moving of equipment, supplies, and tanks. Heavy lifting of machinery parts and hoods while dismantling, inspecting, and repairing.

6. WORKING CONDITIONS

Normally work is performed inside heated buildings but may frequently need to go outside during inclement weather. Exposed to the hazards of working around running machinery, noise, boiler burst, steam leaks, soot, scalding water, burns, toxic amounts of gas fumes and odors. Work in steam rooms where temperatures may be above 110' F. Work in cold rooms where the temperature may be as low or lower than -20' C. On occasion is required to work in protective mask and/or clothing due to biohazards, dangerous chemicals, or materials.